Gene Gunn/SUPR/R7/USEPA/US
03/14/2005 11:51 AM

To Bruce Morrison/SUPR/R7/USEPA/US@EPA
cc Cecilia Tapia/SUPR/R7/USEPA/US@EPA, Robertw Jackson/SUPR/R7/USEPA/US@EPA, Dana Skelley/CNSL/R7/USEPA/US@EPA
bcc
Subject Fw: Herculaneum - Doe Run Deposition

Bruce,

We may need to seek other means to do this modeling. Don Bahnke had our lab in Las Vegas do some modeling in Omaha. We may need the particle size data (cylindrical sampler) to complete the work. I think I remember that Rob Elias from one of our labs had given us some direction on modeling, we might start with him. The weather data source is also something we need to look into.

gene
---- Forwarded by Gene Gunn/SUPR/R7/USEPA/US on 03/14/2005 10:33 AM ----

Richard Daye/ARTD/R7/USEPA/US
03/11/2005 12:44 PM

To Gene Gunn/SUPR/R7/USEPA/US@EPA
cc Joshua Tapp/ARTD/R7/USEPA/US@EPA, Gwen Yoshimura/ARTD/R7/USEPA/US@EPA
Subject Herculaneum - Doe Run Deposition

Gene
Modeling the Herculaneum area to estimate deposition from the Doe Run activities will not be an easy task. We do not have any current on-site meteorological data. We do have the meteorological data that was used for the modeling that was done for the SIP. The emission data that we have are the emissions allowed in the SIP. The data contain only very limited emission estimates from vehicle traffic near the Doe Run facility.

Up-to-date emission inventory and/or the emissions during the period when soil measurements have been made, and the meteorological data for the same period would be necessary to get the most accurate estimate of deposition in the Herculaneum area. I believe that the meteorological site at the Doe Run facility is still active but the data have not been processed in a form to be used in a dispersion model. To obtain and verify the emission and meteorological data would take several months. The modeling would take an additional few months.

It is possible to use the same model (ISCST) that was used for the SIP and model the allowed emissions with the meteorological data that we have but we probably do not have representative data for the vehicle traffic. These data would have to be obtained. This modeling should give a "worst case" impact for the period modeled since the Doe Run facility would be operating at its maximum capacity. Higher concentrations/depositions may be possible because of the limited meteorological data used. We would have to know the emissions from the maximum number of vehicles and the operating times. The modeling would take a few months after the data were verified.

Mick